



# DECUS

## PROGRAM LIBRARY

DECUS NO.	8-471
TITLE	VERIFY PAPER TAPE (12K)
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SOURCE LANGUAGE	



Program to Verify Paper Tape

The purpose of this program is to verify that a tape is the same as the one from which it was copied or that two copies of a tape are the same. It is applicable to a PDP-8 system having at least 12K core.

Procedure

1. Set Instruction field to 0.
2. Load the program in Data field 0.
3. Load the known tape in Data field 1.
4. Load the tape to be verified in Data field 2.
5. In the first location after the last location on the known tape deposit some known number, i.e. data field 1 inst field 1 deposit XXXX.
6. In the same location in Data field 2 deposit some other known number, i.e. Data field 2 inst field 2 deposit YYYY.
7. Load add 0200 Data field 0 inst field 0.
8. Put up switches corresponding to the starting location of the tape.
9. Press start.

Results

1. Program halts in the first location where a difference between the tapes occurs.
2. Press continue AC shows contents of location of the halt from the known tape.  
MQ shows contents of location of the halt from the tape to be verified.

3. Press continue again.

Computer will halt at the next location where there is a difference.

4. Press continue again - AC and MQ will be as above.

If the halt has occurred in the final location plus one where you have deposited the known numbers

Press continue AC XXXX (known number)

MQ YYYY (known number)

The tape has been verified.



Example

Known tape starting address 20  
final address 7776

Procedure - tapes are loaded

Step 5 - DF 1 IF 1 locn 7777 deposit 7234  
Step 6 - DF 2 IF 2 locn 7777 deposit 4327  
Step 7 - DF 0 IF 0 LA 0200  
Step 8 - Set SR to 0020  
Step 9 - start

Computer Halts

Locn 7214

Press continue AC 4375 MQ 4296

Content of known tape	Content of tape to be verified
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Halt is not in 7777 ∴ tapes do not check.

Computer Halts

Locn 7777

Press continue AC 7234  
MQ 4327

These are number inserted ∴ Tapes check and the tape being verified is identical to the known tape.

Test Program to Verify Bank

1 to Bank 2. Program resides in Bank 0. Starting address in S.R.

200 start	LAS	7604
1	DCA ADR 1	3222
2	TAD ADR 1	1222
3	DCA ADR 2	3223
4 Begin	CDF 1	6211
5	TAD, I ADR 1	1622
6	DCA Save 1	3224
7	CDF 2	6221
10	TAD, I ADR 2	1623
11	DCA Save 2	3225
12	TAD Save 2	1225
13	CIA	7041
14	TAD Save 1	1224
15	SZA CLA	7640
16	JMP Display	5226
17 Index	ISZ ADR 1	2222
20	ISZ ADR 2	2223
21	JMP Begin	5204
22 ADR 1		0
23 ADR 2		0
24 Save 1		0
25 Save 2		0
26 Display		0
27	TAD ADR 1	1222
30	7402	7402
31	CLR	7200
32	TAD Save 2	1225
33	MQL	7421
34	TAD Save 1	1224
35	7402	7402
36	CLR	7200
37	J Index	5217

